

WHAT IS CLAIMED IS:

1. A method of producing a dairy product fortified with a fine powdered of calcium phosphate, comprising the steps of:
 - 5 A. providing a warm pasteurized milk blend having a temperature of 40°C to 60°C comprising a milk blend having a native calcium content and sufficient amounts of calcium phosphate in powder form comprising particles having a mean diameter of $\leq 6\mu\text{m}$ to provide a total calcium content of 125% to 500% of the native calcium content.
- 10 2. The method of claim 1, additionally comprising the step of:
 - 15 B. inoculating the warm pasteurized calcium phosphate fortified heat treated milk base with a starter culture to form an inoculated milk base.
3. The method of claim 2, additionally comprising the step of:
 - 20 C. fermenting the inoculated milk base to provide a yogurt.
4. The method of claim 3, additionally comprising the step of:
 - 25 D. cooling the yogurt to arrest the fermentation to provide a chilled yogurt having a viscosity of at least 1500 centipoise (at 5°C).
5. The method of claim 3, wherein the fermentation step is practiced quiescently.
6. The method of claim 4 additionally comprising the step of: adding the chilled yogurt to a container to form a filled yogurt container.
- 30 7. The method of claim 6 wherein the container is a cup.
8. The method of claim 6 wherein the container is a flexible

tube fabricated from a flexible film.

9. The method of claim 4 additionally comprising the step of:
adding the inoculated milk base to a container prior to
fermenting Step C.
- 5 10. The method of claim 6 wherein the chilled yogurt
additionally comprises a fruit sauce.
11. The method of claim 1 wherein the milk blend comprises
mammalian milk.
12. The method of claim 1 wherein the calcium source is
10 selected from the group consisting of tricalcium
phosphate, dicalcium phosphate, their hydrates, and
mixtures thereof.
13. The method of claim 9 wherein additionally comprising
about 5 to 15% by weight of the fermented dairy product
15 of a fruit ingredient.
14. The method of claim 13 wherein the fermented dairy
product is a yogurt having a viscosity of at least 2300
cps (at 5°C).
15. The method of claim 6 wherein the fermented dairy product
20 is a yogurt and wherein the yogurt is free of a fruit
ingredient.
16. The method of claim 6 wherein the calcium salt is
tricalcium phosphate.
17. The method of claim 6 additionally comprising the step:
25 maintaining the chilled yogurt container at about 5°C to
about 10 °C.
18. The method of claim 1 wherein the total calcium content
ranges from about 0.25% to about 0.75%.
19. The method of claim of claim 1 wherein the milk blend
30 comprises at least one mammalian milk ingredient.
20. The method of claim of claim 1 wherein the milk blend
comprises at least one soybean milk ingredient.
21. The method of claim of claim 1 wherein the milk blend

comprises is chocolate flavored.

22. The method of claim 1, additionally comprising the step of:

B. cooling the calcium fortified pasteurized milk blend
5 to about 1°C to 10°C to form a calcium fortified
refrigerated milk.

25. The product produced by the method of claim 1.

26. The product produced by the method of claim 3.

27. The product produced by the method of claim 4.

10 28. The product produced by the method of claim 7.

29. The product produced by the method of claim 24.

30. A fermented dairy product fortified with calcium
comprising:

A. a quantity of fermented dairy product having a
15 viscosity of at least 1500 cps (at 5°C), and

B. sufficient amounts of calcium phosphate, dispersed
in the fermented dairy product to provide at least
251 mg of calcium per 170g (up to 1500 mg calcium
per 170g) wherein the particle size of the calcium
20 phosphate comprises particles having a mean diameter
of $\leq 6\mu\text{m}$.

31. The fermented dairy product of claim 30 wherein the
calcium phosphate is calcium phosphate tribasic.

32. The fermented dairy product of claim 30 wherein the
25 fermented dairy product is yogurt.

33. The fermented dairy product of claim 30 wherein the dairy
product is free of a fruit ingredient.

34. The fermented dairy product of claim 30 wherein the total
calcium content is about 0.29 to 0.76% by weight.

30 35. The fermented dairy product of claim 31 wherein the
calcium phosphate is evenly dispersed throughout the
product.

36. The fermented dairy product of claim 30 wherein the pH of the product is about 4.4 to 4.6.
37. The fermented dairy product of claim 30 additionally comprising a high potency sweetener.
- 5 38. The fermented dairy product of claim 32 wherein the yogurt is a stirred style yogurt product.
39. The fermented dairy product of claim 32 wherein the yogurt is a cut set style yogurt product.
40. In a method of producing a fermented dairy product by
10 inoculating a pasteurized milk blend having a native calcium content and fermenting, the improvement comprising:
adding calcium phosphate in particulate in powder form comprising particles having a mean diameter of $\leq 6\mu\text{m}$
15 to provide a total calcium content of 125% to 500% of the native calcium content of the milk blend prior to pasteurization.
41. The method of claim 40 wherein the fermented dairy product is yogurt.
- 20 42. The method of claim 41 wherein yogurt includes a live culture and has a viscosity of at least 2300 cps (at 5°C).
43. The method of claim 42 wherein the yogurt is free of a fruit ingredient.
- 25 44. The method of claim 42 wherein the calcium phosphate is tricalcium phosphate having a mean particle size of $\leq 5\mu\text{m}$.
45. The method of claim 44 wherein the yogurt is a stirred style yogurt.
- 30 46. The method of claim 44 wherein the yogurt is a cup set style yogurt.
47. The method of claim 46 wherein the added calcium

comprises tribasic calcium phosphate.

48. The product prepared by the method of claim 40.
49. The product prepared by the method of claim 44.
50. The product prepared by the method of claim 49.
- 5 51. The method of claim 42 additionally comprising the step of forming the yogurt into an aerated soft-frozen yogurt product having a density of 0.5 to 0.8g/cc and a temperature of -5 to -8°C.
52. A calcium fortified milk based food product exhibiting improved nutrition and good organoleptic properties, comprising:
- 10 a pasteurized milk base comprising at least one milk ingredient and having a native calcium content, and sufficient amounts of sufficient amounts of calcium phosphate in powder form comprising particles having a mean diameter of $\leq 6\mu\text{m}$ to provide a total calcium content of 125% to 500% of the native calcium content.
- 15 53. The food product of claim 52 wherein the food product is a fluid milk.
- 20 54. The food product of claim 53 wherein the fluid milk is refrigerated milk.
55. The food product of claim 54 wherein the pasteurized milk base comprises at least one mammalian milk ingredient.
56. The food product of claim 54 wherein the fluid milk is chocolate flavored.
- 25 57. The food product of claim 53 wherein the fluid milk is UHT milk.
58. The food product of claim 52 wherein the food product is a cultured dairy product.
- 30 59. The food product of claim 58 wherein the cultured dairy product is a yogurt.
60. The food product of claim 59 wherein the cultured dairy

product is a cheese.

61. The food product of claim 58 wherein the total calcium content ranges from about 0.25% to about 0.75%.
62. The food product of claim 52 additionally comprising a gelatinized starch.
63. The food product of claim 62 wherein the milk is chocolate flavored.
64. The food product of claim 63 wherein the food product additionally comprises a sweetener and is in the form of a pudding.
65. The food product of claim 52 wherein the milk ingredient includes a soybean milk.
66. The food product of claim 59 free of calcium carbonate.
67. The food product of claim 59 wherein the yogurt is a cup set style yogurt.
68. The food product of claim 67 additionally comprising about 1% to 15% of a fruit sauce.
69. The food product of claim 59 disposed within a sealed container fabricated from a flexible film.
70. The food product of claim 59 disposed within a sealed container fabricated from a flexible film in the form of a tube.
71. The fermented dairy product of claim 30 aerated to a density of 0.5 to 0.9 g/cc.
72. The fermented dairy product of claim 71 frozen to -15 to -2°C.